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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,513	08/20/2003	Bryce A. Jones	2305	6581

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EXAMINER

NGUYEN, TUAN HOANG

ART UNIT PAPER NUMBER

2618

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,513

Applicant(s)

JONES ET AL.

Examiner

Tuan H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>06/28/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5-7, 12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dowling (U.S PAT. 6,985,931) in view of Beach (U.S PAT. 6,901,270).

Regarding claim 1, Dowling discloses a wireless local area network (WLAN) for providing wireless telecommunications services to a multi-mode mobile station, multi-mode mobile station being able to wirelessly communicate with a wireless wide area network (WWAN) when operating in a first wireless coverage area, WWAN including a first data register that contains a first data record for multi-mode mobile station (col. 5 lines 16-40), WLAN comprising: at least one wireless access point providing a second wireless coverage area (col. 2 lines 24-35), multi-mode mobile station being able to wirelessly communicate with at least one wireless access point when multi-mode mobile station operates in second wireless coverage area (col. 2 lines 24-60). Dowling differs

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from the claimed invention in not specifically teaching a private branch exchange (PBX) communicatively coupled to at least one wireless access point; and a second data register communicatively coupled to PBX and to first data register, second data register being able to transmit at least one mobility management message to first data register, whereby at least one mobility management message facilitates roaming between first and second wireless coverage areas by multi-mode mobile station. However, Beach teaches a private branch exchange (PBX) communicatively coupled to at least one wireless access point (Fig. 2 col. 4 lines 15-27); and a second data register communicatively coupled to PBX and to first data register, second data register being able to transmit at least one mobility management message to first data register, whereby at least one mobility management message facilitates roaming between first and second wireless coverage areas by multi-mode mobile station (col. 6 lines 18-36). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dowling for a private branch exchange (PBX) communicatively coupled to at least one wireless access point; and a second data register communicatively coupled to PBX and to first data register, second data register being able to transmit at least one mobility management message to first data register, whereby at least one mobility management message facilitates roaming between first and second wireless coverage areas by multi-mode mobile station, as per teaching of Beach, because it provides systems for wireless local area network (WLAN) data communications include systems made according to IEEE Standard 802.11 wherein

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mobile units associate with an access point connected to a computer or a wired computer network in order to engage in wireless data communications.

Regarding claim 2, Beach further discloses second data register is integrated with PBX (col. 5 lines 46-63).

Regarding claim 5, Dowling further discloses second data register stores a second data record for multi-mode mobile station when multi-mode mobile station operates in second wireless coverage area (col. 4 lines 8-19).

Regarding claim 6, Dowling further discloses at least one mobility management message includes a registration message that second data register sends to first data register when multi-mode mobile station operates in wireless coverage area, registration message identifying multi-mode mobile station (col. 13 lines 25-40).

Regarding claim 7, Dowling further discloses at least one mobility management message includes a routing message, routing message including routing information to route a call to multi-mode mobile station (col. 1 lines 48-65).

Regarding claim 12, Dowling discloses a method of mobility management of a multi-mode mobile station, multi-mode mobile station being able to wirelessly communicate with a wireless wide area network (WWAN) and with a wireless local area network

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(WLAN), method comprising: multi-mode mobile station associating with a wireless access point of WLAN (col. 2 lines 24-60); and WLAN data register sending a registration message to a WWAN data register in WWAN, registration message identifying multi-mode mobile station (col. 5 lines 16-40). Dowling differs from the claimed invention in not specifically teaching a private branch exchange (PBX), communicatively coupled to wireless access point, storing information regarding multi-mode mobile station in a WLAN data register. However, Beach teaches a private branch exchange (PBX), communicatively coupled to wireless access point, storing information regarding multi-mode mobile station in a WLAN data register (col. 4 lines 1-27). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Dowling for a private branch exchange (PBX), communicatively coupled to wireless access point, storing information regarding multi-mode mobile station in a WLAN data register, as per teaching of Beach, because it provides systems for wireless local area network (WLAN) data communications include systems made according to IEEE Standard 802.11 wherein mobile units associate with an access point connected to a computer or a wired computer network in order to engage in wireless data communications.

Regarding claim 15, Dowling further discloses WLAN data register receiving a routing request from said WWAN (col. 4 lines 36-42); and sending a routing message to said WWAN data register, said routing message including routing information to route a call to said multi-mode mobile station (col. 1 lines 48-65).

3. Claims 3-4, 8-11, 13-14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dowling (U.S PAT. 6,985,931) in view of Beach (U.S PAT. 6,901,270) as applied to claims above, and further in view of Thornton et al. (U.S PUB. 2002/0101860 hereinafter "Thornton").

Regarding claim 3, Dowling and Beach, in combination, fails to disclose PBX is communicatively coupled to a packet-switched network. However, Thornton teaches PBX is communicatively coupled to a packet-switched network (page 8 [0093]). Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Thornton into view of Dowling and Beach, in order for use therein, for a telephony gateway intended for use, e.g., paired use, at opposite ends of a data network connection, in conjunction with at each end, e.g., a private branch exchange (PBX) for automatically routing telephone calls, e.g., voice, data and facsimile, between two peer PBXs over either a public switched telephone network (PSTN) or a data network.

Regarding claim 4, Thornton further discloses PBX is communicatively coupled to a circuit-switched telephone network (page 28 [0264]).

Regarding claims 8 and 16, Thornton further discloses routing information includes a directory number associated with said PBX (page 32 [0300]).

Regarding claims 9 and 17, Thornton further discloses routing information includes a directory number associated with a media gateway communicatively coupled to said WLAN via a packet-switched network (page 32 [0300]).

Regarding claims 10 and 18, Thornton further discloses routing information includes an Internet Protocol (IP) address of PBX (page 32 [0300]).

Regarding claims 11 and 19, Thornton further discloses routing information includes an Internet Protocol (IP) address of multi-mode mobile station (page 1 [0007]).

Regarding claim 13, Thornton further discloses PBX receiving a service registration message from multi-mode mobile station, service registration message identifying multi-mode mobile station (page 8 [0093]); and PBX sending a registration notification message to WLAN data register, registration notification message identifying multi-mode mobile station (page 14 [0145]).

Regarding claim 14, Dowling further discloses WLAN data register storing a data record for multi-mode mobile station (col. 12 lines 15-22).

Conclusion

4. Any response to this action should be mailed to:

Mail Stop _____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

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Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

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Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen
Examiner
Art Unit 2643


NAY MAUNG
SUPERVISORY PATENT EXAMINER